

What is claimed is

1. A tool for seating a spinal rod in a rod-receiving portion of a spinal implant, the tool comprising:

a body having a proximal end portion and a distal end portion, said distal end including a first and second flexible branch for gripping a spinal implant;

an inserter shaft slidably received within said body, said inserter shaft having a distal end adapted to hold a closure mechanism for said implant; and

a threaded collar, adapted to couple said body and said inserter shaft, wherein said inserter shaft forces a spinal rod into the rod-receiving portion of said implant.

2. The tool of claim 1 further comprising an outer sleeve rotatably and slidably mounted onto said distal end of said body, said sleeve movable between a first and second position.

3. The tool of claim 2 wherein said body further comprises a pin projecting from said body and said outer sleeve has a channel for receiving said pin.

4. The tool of claim 1 wherein said flexible branches are biased to a closed position.

5. The tool of claim 1 wherein said body further comprises external threads to engage with the threaded collar.

6. A method of seating a rod into a rod-receiving portion of a spinal implant comprising the steps of:

holding a tool for seating a rod into spinal implant comprising:

a body including a first and second flexible branches for gripping the spinal implant; an inserter shaft slidably received within said body, said inserter shaft having a distal end adapted to hold a closure mechanism for the implant; a threaded collar, adapted to couple said body and said inserter shaft;

sliding the inserter shaft beyond the distal end of said body to hold said closure mechanism;

withdrawing the closure mechanism on said shaft into said body;

positioning said rod between said branches of said body;

expanding the flexible branches of said body over said spinal implant to securely grip

said implant;

threading said threaded collar onto said body to advance said inserter shaft and urge said rod into said spinal implant; and

securing said closure mechanism in said spinal implant by rotating said inserter shaft.

7. A tool for seating a spinal rod in a rod-receiving portion of a spinal implant, the tool comprising:

a body having a proximal and distal end portion, wherein an interior channel extending between the distal and proximal ends, said distal end portion having flexible branches for gripping a spinal implant and said proximal end portion having external threads;

an inserter shaft slidable within said interior channel of the body having a proximal end portion, a distal end portion, and a transition zone located between said distal and proximal end portions, said transition zone having a diameter larger than the proximal end portions, said distal portion adapted to hold a closure mechanism for the spinal implant; and

a collar having an internally threaded hollow body and a central shaft attached to said hollow body, wherein said central shaft limits the amount of independent motion between said inserter shaft and said collar.

8. The tool of claim 7 wherein the diameter of the transition zone of the inserter shaft is greater than inner diameter of the central shaft of the collar.

9. The tool of claim 7 wherein said gripping branches are biased in a closed position.

10. The tool of claim 7 wherein said central shaft of the collar has a distal and a proximal portion said proximal portion attached to said hollow body and said distal portion extending past said hollow body and having an abutment surface for engaging the transition zone portion of said inserter shaft.

11. A tool for seating a spinal rod in a rod-receiving portion of a spinal implant comprising:

a body having a proximal and a distal end portion, said distal end portion having branches for gripping a spinal implant, wherein an interior channel extends between the distal and proximal ends;

an inserter shaft having a proximal and a distal end portion, said distal end portion adapted to hold a closure mechanism for the spinal implant, wherein said shaft is sized to fit within the interior channel of the body; and

a guide mechanism co-operable with said shaft and said body whereby said guide mechanism limits the independent movement of the shaft within the body.

12. The tool of claim 11 wherein the guide mechanism comprises a channel and a pin adapted to fit within said channel.
13. The tool of claim 12 wherein the channel is located on the body and the pin adapted to fit within said channel is located on said shaft.
14. The tool of claim 13 wherein said channel extends parallel to the longitudinal axis of the body.
15. The tool of claim 14 wherein a portion of said channel branches off at an angle and reverses direction.
16. The tool of claim 15 wherein the point where said channel branches off corresponds to the point where the spinal rod is fully seated in the implant.
17. The tool of claim 15 wherein said angle is approximately 90 degrees.
18. The tool of claim 12 wherein the pin and channel prevent the shaft from being removed from the body.
19. The tool of claim 11 wherein the independent movement limited is the rotational orientation of the inserter shaft with respect to the body.
20. The tool of claim 11 wherein the independent movement limited is the axial translation of the inserter shaft with respect to the body.
21. A method of seating a spinal rod into a spinal implant comprising the steps of:
holding a tool for seating a spinal rod into a spinal implant comprising:
 - a body having a proximal end portion and a distal end portion, said distal end including a first and second flexible branch for gripping the spinal implant, said proximal portion including a channel having a proximal and distal ends and a portion branching off at an angle between said proximal and distal ends; an inserter shaft slidably received within said body, said inserter shaft having a proximal portion, a distal portion, and a transition portion between said proximal and distal portions, wherein a pin projects from said transition portion, and said distal portion adapted to hold a closure mechanism for the implant; and a threaded collar;
 - advancing said pin to the distal end of said channel;
 - holding said closure mechanism with the distal end of said inserter shaft;
 - moving said pin to the proximal end of said channel;

positioning the rod between the branches of said body; gripping said spinal implant with said branches;

threading said collar onto said body to move said pin from the proximal end of said channel to the portion where said channel branches off at an angle;

rotating said inserter shaft as far as possible to lock said closure mechanism to said spinal implant.